

*June 13, 2019
Washington, D.C.*

Future of Natural Gas & Alternative Energy in the Northeast

Presentation to:

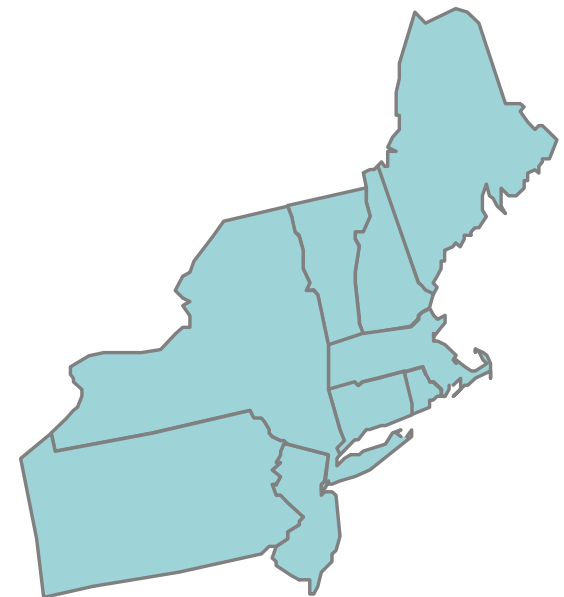
2019 EBA Northeast Chapter Annual Meeting



Tom Kiley
Northeast Gas Association

About NGA

- ◆ Non-profit trade association
- ◆ Local gas utilities (LDCs) serving New England, New York, New Jersey, Pennsylvania
- ◆ Several interstate pipeline companies
- ◆ LNG & CNG importers, suppliers and transporters
- ◆ Over 350 “associate member” companies, from industry suppliers and contractors to electric grid operators
- ◆ www.northeastgas.org



NGA'S ANTITRUST COMPLIANCE PROCEDURES

Adopted by the NGA Board of Directors on June 20, 2018

Objective

The Northeast Gas Association (NGA) and its member companies are committed to full compliance with all laws and regulations, and to maintaining the highest ethical standards in the way we conduct our operations and activities. Our commitment includes strict compliance with federal and state antitrust laws, which are designed to protect this country's free competitive economy.

Responsibility for Antitrust Compliance

Compliance with the antitrust laws is a serious business. Antitrust violations may result in heavy fines for corporations, and in fines and even imprisonment for individuals. While NGA's attorneys provide guidance on antitrust matters, you bear the ultimate responsibility for assuring that your actions and the actions of any of those under your direction comply with the antitrust laws.

Antitrust Guidelines

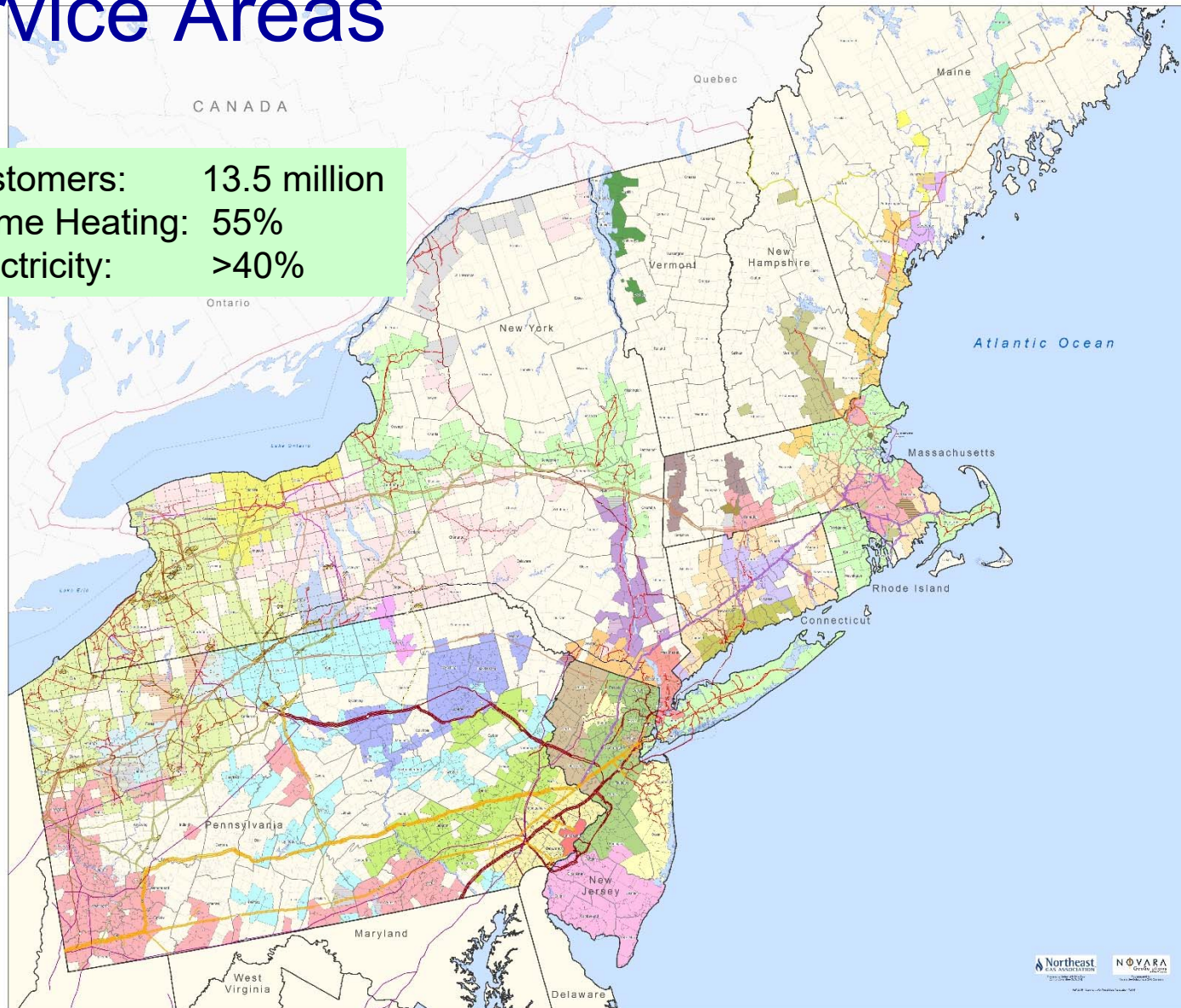
In all NGA operations and activities, you must avoid any discussions or conduct that might violate the antitrust laws or even raise an appearance of impropriety. The following guidelines will help you do that:

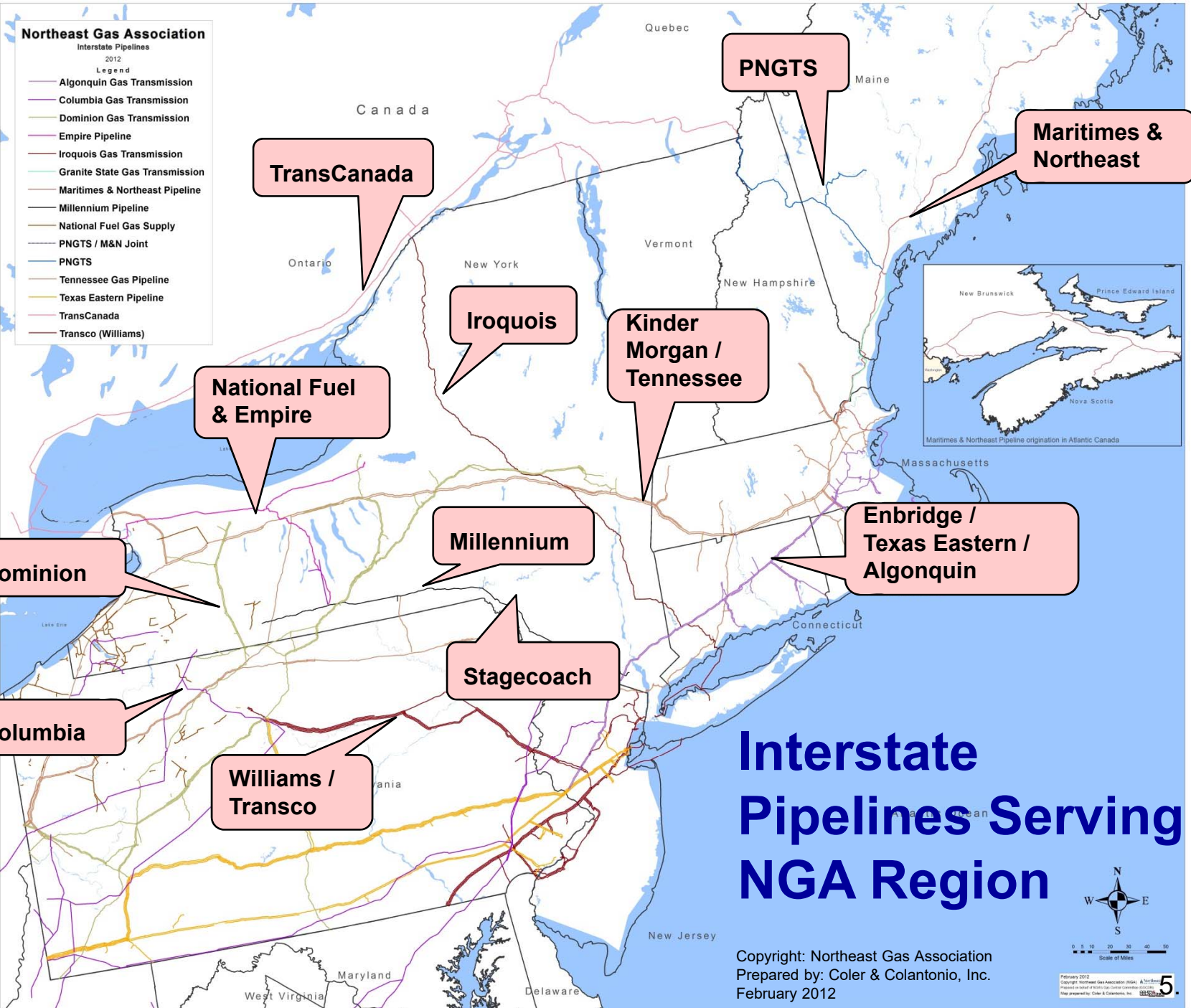
- **Do** consult counsel about any documents that touch on sensitive antitrust subjects such as pricing, market allocations, anti-employee poaching practices, refusals to deal with any company, and the like.

Northeast U.S. Natural Gas Service Areas



Gas Customers: 13.5 million
% of Home Heating: 55%
% of Electricity: >40%

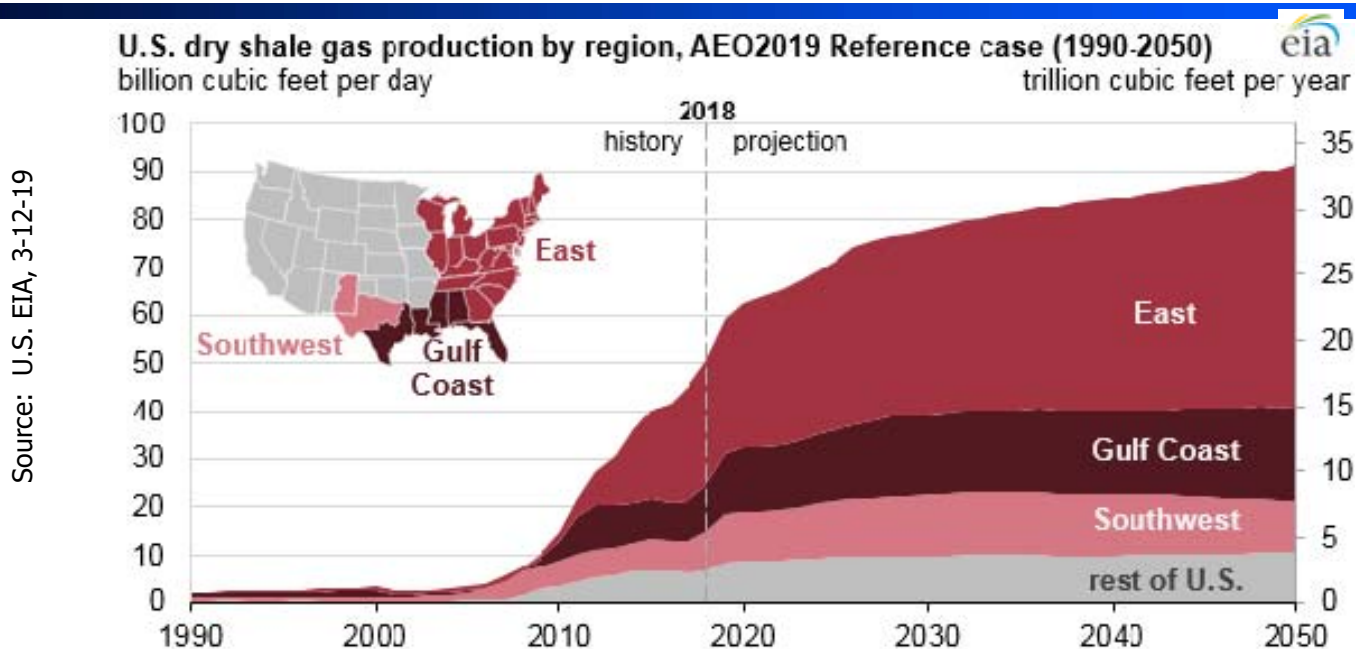




Interstate Pipelines Serving NGA Region

Copyright: Northeast Gas Association
Prepared by: Coler & Colantonio, Inc.
February 2012

EIA Outlook: Northeast Gas Production Remains Robust



U.S. natural gas production achieved record annual output in 2018, 11% over 2017 level. Looking ahead to long-term forecast, U.S. EIA, March 12, 2019:
“Total U.S. dry natural gas production... is driven by continued development of the Marcellus and Utica shale plays in the East region... Dry shale natural gas production in the East accounts for over half of this growth as production more than doubles during the projection period from 24 Bcf/d in 2017 to 50 Bcf/d in 2050 in the Reference case.”

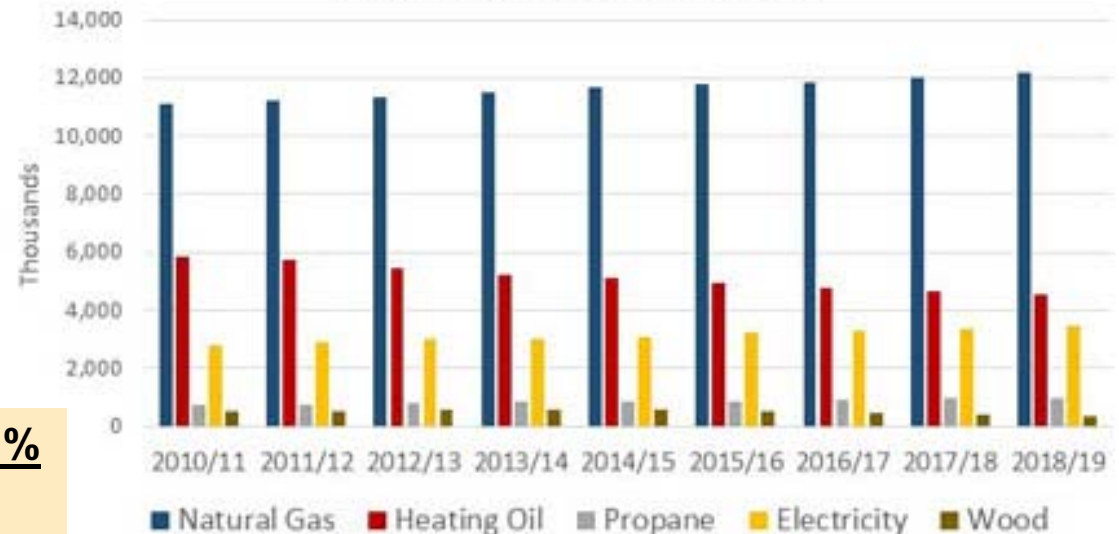
Customer Growth Continues in Residential Sector



Northeast Homes, Fuel Type %

Natural Gas:	55%
Heating Oil:	22%
Electricity:	15%

Households by Primary Fuel Type,
Northeast U.S., 2010-2018



Source: U.S. EIA, 10-10-18

Since 2010, natural gas has added over 1 million new household customers in the Northeast states.

Some Recent Additions to Gas Generation Capacity



**Footprint Power
Salem Harbor
Salem, MA
674 MWs
Online June 2018**



**CPV Towantic Energy Center
Oxford, CT
805 MWs
Online June 2018**



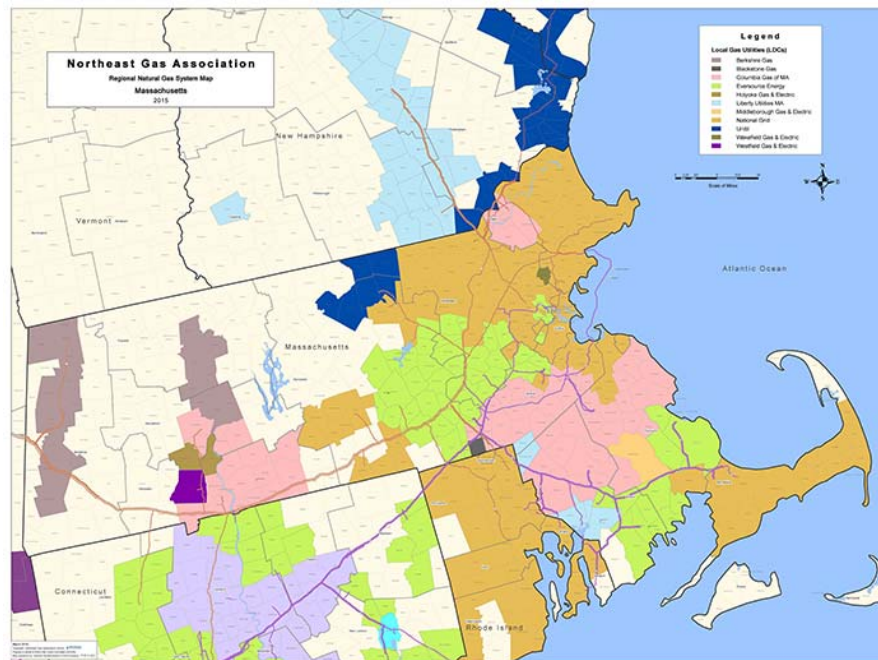
**CPV Valley Energy Center
Wawayanda, NY
680 MWs
Online Fall 2018**



**PSEG Power
Bridgeport Harbor Station 5
Bridgeport, CT
485 MWs
Online June 2019**

Moratoria Enacted by Several Gas Utilities in MA

There are currently 4 natural gas utilities in MA that have implemented restrictions on new gas service interconnections, due to limitations on pipeline supply availability in-state.



Communities impacted:

Amherst
Deerfield
Easthampton
Greenfield
Hadley
Hatfield
Holyoke
Middleborough
Montague
Northampton
Sunderland
Whately

Limitations Enacted by Gas Utilities in Downstate NY

Con Edison

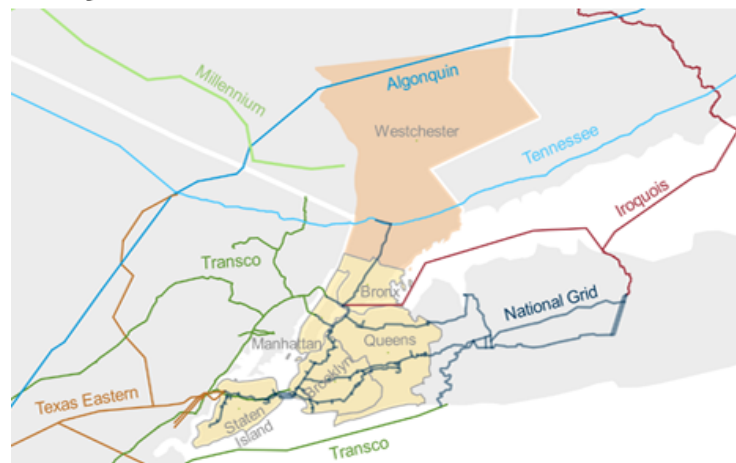
Moratorium on new services in parts of Westchester County, announced March 2019.

National Grid

Utility announced in May 2019 that it “has stopped processing all applications for new or expanded gas service in Brooklyn, Queens and on Long Island.” Staten Island service area is not impacted.

FERC had approved Transco’s “NESE Project” to supply National Grid on May 3. On May 15, NYS DEC denied water quality certificate for project.

Pipeline infrastructure for New York City and Westchester County



 Source: U.S. Energy Information Administration

Map: U.S. EIA, May 2019

Observations

- Natural gas utilities in Northeast continue to see growth on systems.
- Natural gas continues to be key part of region's power system – and helps balance / enable increasing renewable additions. With retirements of non-gas units such as nuclear/coal/oil, role of gas in next several years likely to increase even further, even as more renewables are added to the grid.
- Pipeline constraints continue to affect downstate New York and New England, leading to market uncertainty, local price volatility, and moratoria on new gas service connections in certain areas.